CENTRE FOR SCIENCE AND TECHNOLOGY OF THE NON-ALIGNED AND OTHER DEVELOPING COUNTRIES (NAM S&T CENTRE)

INTERNATIONAL WORKSHOP ON PERSPECTIVES ON SCIENCE & TECHNOLOGY DIPLOMACY FOR SUSTAINABLE DEVELOPMENT IN NAM AND OTHER DEVELOPING COUNTRIES

COUNTRIES, MANESAR (HARYANA), INDIA

27-30 MAY 2014

BRIEF REPORT

Science as an instrument has often been used to attend to problems of mutual interest and build constructive bilateral, regional and multilateral partnerships between the nations in the areas of strategic relevance, technology transfer, intellectual property rights, trade and commerce etc. In international dealings among nations, science as a diplomatic tool helps in removing political barriers offering tangible benefits to the concerned parties. Science diplomacy aids in fostering international collaborations among scientists in nations, including the ones where official diplomatic relations might be limited or strained, by providing a platform for scientists to cooperate. The potential of science and technology is slowly gaining recognition and many developing countries have initiated actions in leveraging international cooperation for national needs and priorities through science diplomacy and making new investments in human resources and infrastructure to enhance their S&T capabilities.

The Centre for Science & Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre) had earlier organised an International Workshop on 'Science and Technology Diplomacy for Developing Countries' during 13-16 May 2012 in Tehran, Iran with participation of 18 countries and 16 Ambassadors and senior diplomats during its inaugural, which got concluded with the adoption of a Resolution having a number of significant recommendations for various countries and stakeholders. It also strongly urged to hold similar scientific programmes in other developing countries for strengthening and promoting the relations among various countries on science, technology and innovation

As a follow up, the NAM S&T Centre organised another **International Workshop on 'Perspectives on Science and Technology Diplomacy for Sustainable Development in NAM and Other Developing Countries'** at Manesar (Haryana) [near New Delhi], India during 27-30 May 2014 with partial financial support from the Department of Science and Technology (DST), Government of India.

In view of the new Government of India under formation and considering the problem associated with travelling to Manesar from Delhi, the Inaugural Session of the workshop was organised in the late afternoon of 27th May in Skype conferencing mode. Prof. Arun P. Kulshreshtha, Director and Executive Head, NAM S&T Centre introduced the Mentor and Vice President NAM S&T Centre, Prof. K. VijayRaghavan, FRS, Secretary to the Government of India, Department of Science & Technology, Ministry of Science and Technology on Skype with each individual foreign delegate, after which he presented a brief background about the workshop. Prof. VijayRaghavan mentioned that Science Diplomacy has been nurtured for extraordinary goals and is exemplified by institutions such as Abdus Salam International Centre for Theoretical Physics at Trieste, European Molecular Biology

Laboratory at Heidelberg and European Centre for Nuclear Research, Geneva. He expressed satisfaction that such a large number of similarly placed developing countries were attending this event for sharing experience on knowledge. He assured that India will examine the unanimously adopted outcomes of this International Workshop and will be open to lead / follow / invest on Science Diplomacy as a collective enterprise. The Mentor and Vice-President, NAM S&T Centre also 'skype'-released two books published by the Centre respectively on Science Diplomacy and Intellectual Property Rights.

The Workshop was attended by 36 participants from 22 countries, including Afghanistan, Cambodia, Colombia, Egypt, Germany, India, Indonesia, Iran, Malaysia, Mauritius, Myanmar, Nepal, Nigeria, Pakistan, Sri Lanka, South Africa, Switzerland, Syria, Turkey, Venezuela, Zambia and Zimbabwe, of which 11 delegates were from the host country India.

The overseas participants were from Afghanistan [Mr. Abdul Haseeb Arabzai**,** Head, Policy & Poverty Analysis Department, General Directorate of Policy & Result based Monitoring, Ministry of Economy]; Cambodia [Dr. Chansopheak SEANG, Director, Graduate Programs, Institute of Technology of Cambodia, Phnom Penh]; Colombia [Mr. Gustavo Makanaky, Counsellor for Economic and Cooperation Issues, Embassy of Colombia to India]; Egypt [Dr. Ahmed Yehia Gad, Assistant Professor, Animal Production Department, Faculty of Agriculture, Cairo University, Giza]; Germany [Prof. Dr. Ittekkot Achuthan Venugopalan William, Professor, University of Bremen and Director (Retired), Centre for Tropical Marine Ecology (ZMT), Bremen]; Indonesia [Mr. Ophirtus Sumule, Director, S&T Provider and Regulation Network, Ministry of Research & Technology]; Iran [Dr. Ali Morteza Birang, Deputy of International Affairs, Vice Presidency for Science and Technology and Dr. Ali Azam Khosravi, Research Counselor, Science, Research & Technology, Embassy of the Islamic Republic of Iran]; Malaysia [Mr. Siva Kumar Solay Rajah, Principal Assistant Secretary, Ministry of Science, Technology and Innovation (MOSTI)]; Mauritius [Mr. Deepak Prabhakar Gokulsing, Minister Counsellor / Deputy High Commissioner, Ministry of Foreign Affairs, Regional Integration and International Trade and Dr. M. Madhou, Research Coordinator, Mauritius Research Council, Ministry of Tertiary Education, Science, Research and Technology, Ebene]; Myanmar [Ms. Khin San Thu, Assistant Director, Ministry of Science and Technology]; Nepal [Dr. Chiranjivi Regmi, Chief Scientists and Chief, Planning Division, Nepal Academy of Science & Technology (NAST), Lalitpur]; Nigeria [Dr. Olugbemi Bolarinwa Olugbenga, Deputy Director / Head, Policy Analysis Division, Raw Materials Research & Development Council (RMRDC)]; Pakistan [Dr. Kamran Ali Qureshi, Federal Secretary, Ministry of Science and Technology]; South Africa [Mr Nkoni Thabiso Selby Modiba, Deputy Director, Multilateral Cooperation, Department of Science and Technology (DST)]; Sri Lanka [Ms. Himali Wathsala Kumari Athaudage, Director, Ministry of Technology and Research]; Switzerland [Dr. Balz Strasser, CEO, Swissnex India, Bengaluru, India]; Syria [Dr. Wael Deirki, Minister Counsellor, Syrian Embassy, New Delhi]; Turkey [Dr. Siir KILKIS, Scientific Programs Expert and Ms. Nesibe Yazici, Scientific Programs Policy Expert of TÜBİTAK Science Technology and Innovation Policy Department]; Venezuela [Ms. Marianly Geraldine Tovar Mujica**,** International Analyst, Ministry of the Popular Power for Science, Technology and Innovation, Piso]; Zambia [Mr. Filipo Zulu, Acting Manager, Programme Development & Implementation, National Science Council, Lusaka]; and Zimbabwe [Mr. Johnsai Tandi

Dewah, Director and Mr. C Mupeyiwa, Principal Science and Technology Officer in the Ministry of Higher and Tertiary Education, Science and Technology Development].

The Indian participants / speakers were Dr. Ashok Jain, Fellow National Academy of Sciences, India, Former Director, National Institute of Science Technology & Development Studies (NISTADS), New Delhi, and Vice President (Academic Development & Research), EMPI Business School; Dr. Dipankar Sarkar, CSIR-Emeritus Scientist, National Geophysical Research Institute (NGRI), Hyderabad; Dr. Anirban Basu, Scientist V, National Brain Research Centre (NBRI), Manesar, Haryana; Mr. Shaikh Emdadul Islam, Director, BITM, National Council of Science Museums, Kolkata; Dr. Raj Mehrotra, Project Coordinator, Kurukshetra Panorama & Science Centre, National Council of Science Museums, Kurukshetra; Mr. Anurag Kumar, Curator, National Science Centre, Delhi; Mrs. Sadhana Relia, Head, International Multilateral and Regional Cooperation Division (IMRCD), Department of Science & Technology (DST), Government of India; Dr. Rita Gupta**,** Scientist-E, IMRCD, DST; Dr. Ruckmani Arunachalam, Scientist-B, IMRCD, DST; and Ms. Radhika Tandon and Ms. Subhashree Basu of the NAM S&T Centre. From among the organisers of the workshop - NAM S&T Centre - Prof. Arun Kulshreshtha, Director and Executive Head**;** Mr. M. Bandyopadhyay, Senior Expert & Administrative Officer; and Mrs. Pinky Singh, Ms. Parul Sehgal and Ms. Shania Tahir, Research Assistants attended this event.

The overall programme of the Workshop was conducted in five Technical Sessions.

Technical Session I titled 'Science and Technology Diplomacy and Sustainable Development Goals (SDGs)' was held in three sub-sessions co-chaired by Mrs. Sadhana Relia (India) and Dr. Ali Birang (Iran); Mr. Kamran Ali Qureshi (Pakistan) and Dr. Dipankar Sarkar (India); and Dr. Venugopalan Ittekkot (Germany) and Mr. M. Bandyopadhyay (India).

Technical Session II titled 'Country Status Reports: S&T Diplomacy in Action' was held in two sub-sessions with the co-chairs as Dr. Chiranjivi Regmi (Nepal) and Dr. Anirban Basu (India); and Dr. Balz Strasser (Switzerland) and Dr. Ashok Jain (India).

Technical Session III titled 'Country Status Reports: Future Prospects and Challenges' was in two sub-sessions co-chaired by Mr. Johnsai Tandi Dewah (Zimbabwe) and Dr. Raj Mehrotra (India); and Mr. Deepak Prabhakar Gokulsing (Mauritius) and Mr. Shaikh Emdadul Islam (India).

Technical Session IV titled 'Science, Technology and Innovation Policy' was in two sub-sessions and was co-chaired by Mr. Nkoni Thabiso Selby Modiba (South Africa) and Mr. Anurag Kumar (India); and Ms. Marianly Geraldine Tovar Mujica (Venezuela)and Mr. Ophirtus Sumule (Indonesia).

Technical Session V titled International Partnerships in Science and Technology was chaired by Ms. Himali Wathsala Kumari Athaudage (Sri Lanka) and Mr. Abdul Haseeb Arabzai (Afghanistan).

Finally, the Concluding session was co-chaired by Dr. Olugbemi Bolarinwa Olugbenga (Nigeria) and Dr. Wael Deirki (Syria).

Prof. Dr. Ihsan Fathallah Rostum, Vice President, Fii Laser Society, Al-Muthanna University, Iraq could not join the workshop till last minute wait as he became a victim of the

terrorist bombing in his country and also lost his close relatives. The delegates expressed their condolence and spent a minute in silence to pray for peace and harmony in the world.

The presentations made by the foreign participants were on 'The Impact of Information and Communication Technology on Development and Achieving MDGs' by Mr. Abdul Haseeb Arabzai of Afghanistan; 'Science & Technology Diplomacy: Progress of the Engineering Education in Cambodia' by Dr. Chansopheak SEANG of Cambodia; Colombian STI Development Policies Summary by Mr. Gustavo Makanaky of Colombia; 'Science and Technology Diplomacy for Sustainable Development in Egypt' by Dr. Ahmed Yehia Gad of Egypt; 'Enhancing National Capabilities for achieving Sustainable Development Goals: Oceans and Seas and Developing Countries' by Prof. Dr. Ittekkot Achuthan Venugopalan William of Germany; 'Indonesian Policy on Development of Science and Technology' by Mr. Ophirtus Sumule of Indonesia; 'Science and Technology Diplomacy: Iran and the Path to Development' by Dr. Ali Morteza Birang of Iran; 'Leveraging on Science, Technology and Innovation (STI) Policy by Enhancing Collaborative Diplomacy' by Mr. Siva Kumar Solay Rajah of Malaysia; 'Perspectives on Science and Technology Diplomacy for Sustainable Development' by Mr. Deepak Prabhakar Gokulsing of Mauritius; 'S&T Diplomacy: Status and Opportunities for the Republic of Mauritius' by Dr. M. Madhou of Mauritius; 'Current Activities on upgrading Technological University under Ministry of Science and Technology' by Ms. Khin San Thu of Myanmar; 'Status of Science and Technology Diplomacy and Need for Capacity Building In Nepal' by Dr. Chiranjivi Regmi of Nepal; 'Nigeria's Technical Aid Corps Scheme: A Model for Science and Technology Diplomacy in Developing Countries by Dr. Olugbemi Bolarinwa Olugbenga of Nigeria; 'Pakistan's International Linkages in Science and Technology' by Dr. Kamran Ali Quresh of Pakistan; 'Science and Technology Diplomacy in Sri Lanka' by Ms. Himali Wathsala Kumari Athaudage of Sri Lanka; 'Science and Technology Diplomacy for Sustainable Development: the South African Experience' by Mr Nkoni Thabiso Selby Modiba of South Africa; 'Switzerland's Approach to Foster Science & Diplomacy for Sustainable Development' Dr. Balz Strasser of Switzerland; 'Country Perspective on S&T Diplomacy: Syria' by Dr. Wael Deirki of Syria; 'The Turkish Vision for Science, Technology, and Innovation' by Dr. Siir Kilkis and Ms. Nesibe Yazici of Turkey; 'Diplomacy in Science and Technology as a Mechanism in Acquiring Technological Transfer: The Venezuelan Experience' by Ms. Marianly Geraldine Tovar Mujica of Venezuela; 'Zambian's S&T Policy' by Mr. Filipo Zulu of Zambia; 'TVET Perspectives on Sustainable Development in Developing Countries: Case for Zimbabwe' by Mr. Johnsai Tandi Dewah of Zimbabawe; and 'The Science and Technology Diplomacy Impact; Achievements, Opportunities and Challenges' by Mr. C. Mupeyiwa of Zimbabawe. The presentations of Dr. Bernard Zahuranec, Program Officer, Oceanic Biology (retired), US Office of Naval Research of USA on 'Perspectives in International Diplomacy in Science and Technology' and of Prof. Tahereh Miremadi, Head of Research Center for S&T Policy and Diplomacy, Iranian Research Organization for Science and Technology (IROST), Iran on 'Integrating S&T Policy and S&T Diplomacy: Designing a Hybrid Model', who could not attend the Workshop, were read in absentia respectively by Ms. Shania Tahir and Mrs. Pinky Singh of the NAM S&T Centre.

Nine papers presented by Indian participants were on 'Importance of Regional Cooperation in Earth Sciences with Special Reference to Earthquake Hazard Scenario in South Asia' by Dr. Dipankar Sarkar; 'Neglected Tropical Diseases in Conflict Zones' by Dr. Anirban Basu; 'The Role of S&T Diplomacy for Technology Sourcing, IPR Issues and

Building S&T Partnerships' by Dr. Ashok Jain; 'Travelling Techno-Cultural Exhibitions and S&T Diplomacy: Recent Initiatives by the National Council of Science Museums (NCSM), India' by Mr. Shaikh Emdadul Islam; 'Effective Science and Technology Diplomacy Tool For Inducing Phenomenal Growth of Science Centres' by Dr. Raj Mehrotra; 'Indian Science & Technology Heritage and S&T Diplomacy' by Mr. Anurag Kumar; 'Better Diplomacy and Better Science for Better Development - A Way Forward towards fulfilling Post-2015 Development Agenda' by Dr. Ruckmani Arunachalam, Dr. Rita Gupta and Mrs. Sadhana Relia; 'Science and Technology Diplomacy in the Area of Nanotechnology' by Ms. Radhika Tandon; and 'Science & Technology Diplomacy in India towards achieving MDG 7 – To ensure Environmental Sustainability' by Mr. M. Bandyopadhyay and Ms. Subhashree Basu.

In the Concluding Session Prof. Arun P. Kulshreshtha, Director, NAM S&T Centre made a presentation on the NAM S&T Centre and its Role in South – South Cooperation in Science and Technology. He also contended that the diplomacy practiced by developed countries was essentially to meet their own needs and demands on cooperation in science, technology, innovation, trade etc. with other countries and regions. However, the diplomacy of the developing countries had more emphasis on negotiating their technology requirements with other countries to achieve their economic goals rather than on basic and fundamental sciences. In this context, Prof. Kulshreshtha suggested the use of a term *Sciplomacy* to encompass the entire gamut of Science, Technology and Innovation Diplomacy requirements of the developing countries.

Dr. Kamran Ali Qureshi, Federal Secretary, Ministry of Science and Technology of Pakistan in his concluding remarks mentioned that scientific thought and its creation is a common shared heritage of mankind and the role of technology innovation in economic growth brought international diplomacy in play. He observed that many nations are willing to give aid, but not technology transfer. He mentioned about the role of the Abdus Salaam International Centre for Theoretical Physics at Trieste which allows scientists across the world to work together. He further said that while many S&T Cooperation agreements are concluded and implemented, it is important that small, doable and achievable collaborative actions are initiated. Weak follow-up on S&T agreements is often attributed to factors such as financial constraints, capacity issue and lack of political will but Pakistan is active on several multilateral forums such as UNCSTD, UNCLOS, UNESCO and NAM S&T Centre. He congratulated the NAM S&T Centre for efficient coordination and giving shape to this International Science and Technology Diplomacy Workshop and the informal contacts with the practitioners of international S&T relations and policy planners participating in this Workshop have been of significant consequences. He also emphasised that while effectiveness of NAM at political front needs to be pushed, the scientific role -collaborative activities and diplomacy amongst NAM countries through the NAM S&T Centre is functioning well beyond boundaries despite financial constraints.

The delegates extensively deliberated and debated on finalising a document titled 'Manesar Declaration – 2014 on Perspectives on Science & Technology Diplomacy for Sustainable Development in NAM and Other Developing Countries' with a set of recommendations, which was thereafter unanimously adopted by the participants. The part of this session was chaired by Dr. Ashok Jain (India) and other panellists were Mrs. Sadhana Relia (DST-India), Mr. Arabzai (Afghanistan), Dr. Ali Birang (Iran), Mr. Selby Modiba (South Africa), Ms. Marianly Tovar (Venezuela). The base paper for discussion was earlier

prepared by Prof. Ittekkot (Germany), Dr. Zahuranec (USA), Prof. Miremadi (Iran), Mrs. Relia (DST-India) and Mr. Bandyopadhyay (NAM S&T Centre). The Final Recommendations in the Manesar Declaration was to establish a Centre for Science and Technology Diplomacy in a developing country to augment the institutional and human capacity in S&T Diplomacy for developing countries to achieve inclusive socio-economic development and their engagement in international discourse; to develop a framework for the adoption of S&T Diplomacy as a tool for engagement of NAM and other developing countries to develop and strengthen their national S&T and innovation systems; to promote it as a distinct discipline by bringing out white papers, reports, policies and case studies, introducing postgraduate courses, research programmes and creating science diplomacy platforms for networking through North-South and South-South partnerships; and to establish appropriate fora to include science communication activities and heritage/indigenous knowledge relevant to S&T Diplomacy.

The Certificates for Participation were distributed to the participants and all those who were involved in the organisation of this excellent initiative by Mrs. Sadhana Relia, Head, IMRCD, DST, Government of India.

The Participants thanked the organisers for holding a highly successful event and for excellent hospitality and arrangements made for the delegates, and unanimously hoped that more similar events will be held in future with a focus on South-South cooperation for the development and successful implementation of S&T Diplomacies in developing countries.

# #